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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,975

Applicant(s)

KUMAR ET AL.

Examiner

Neil R. Kardos

Art Unit

3623

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-25, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-25, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is a **FINAL** Office action on the merits in response to communications filed on October 16, 2008. Claims 1, 3, 6, 7, 10-13, and 23 have been amended. Claims 9 and 26-36 have been cancelled. Claims 37 and 38 have been added. Currently, claims 1-8, 10-25, 37, and 38 are pending and have been examined.

Response to Amendment

Claim Objections

Applicant's cancellation of claims 33 and 34 has rendered moot the claim objections set forth in the previous Office action.

Rejections under § 101

Applicant's amendments to claims 1 and 7 are sufficient to overcome the § 101 rejection with respect to claims 1-5, 7-8, and 10-22 as set forth in the previous Office action. Applicant's amendments to claim 23 are NOT sufficient to overcome the § 101 rejection set forth in the previous Office action for reasons explained below. Accordingly, this rejection has been maintained.

Double Patenting Rejections

Applicant has postponed a response to the double patenting rejections set forth in the previous Office action. This rejection has been maintained below.

Response to Arguments

Applicant's arguments filed on October 16, 2008 have been fully considered but they are not persuasive. Applicant argues that Singh, Mallon, Clemen, and Official Notice fail to disclose "using a generated projection of future browsing activity to predict future purchasing activity." (see Applicant's Response filed October 16, 2008, page 11) In response to this argument Examiner respectfully disagrees.

First, Applicant points out that the previous Office action acknowledges that Singh, Mallon, and Clemen fail to explicitly disclose this limitation. (see *id.*) Examiner notes that under a § 103 rejection, it is not necessary for a reference to explicitly disclose a limitation. Prior art is not limited just to the references being applied, but includes the understanding of one of ordinary skill in the art. The prior art references need not teach or suggest all the claim limitations so long as the differences between the prior art and the claimed inventions would have been obvious to one of ordinary skill in the art. *See* MPEP 2141(III).

In light of the foregoing, Examiner contends that Mallon at least suggests the claimed limitation of "using a generated projection of future browsing activity to predict future purchasing activity." In paragraph 5, Mallon discloses "the individual's past Internet behavior [i.e. the claimed "historical browsing data"] is used to predict which of a number of banner advertisements the individual would be more likely to click through [i.e. the claimed "projection of future browsing activity"] and make a purchase [i.e. the claimed "future purchasing activity"]." Thus, Mallon at least suggests the claimed limitation.

Furthermore, Examiner took Official Notice of this limitation in the previous Office action, and maintains this finding of fact. Applicant's contend that this limitation is too complex

to be considered well known to a person of ordinary skill in the art (see Response, page 11).

Examiner disagrees because such a forecasting technique was commonly utilized prior to Applicant's invention. Thus, Examiner takes Official Notice that using historical browsing data to predict future browsing data and using a projection of future browsing data to predict future purchasing data was well known to one of ordinary skill in the art at the time of the invention. For example, consider a company that is trying to make a decision on whether to purchase advertising during the Super Bowl. Records have long been kept of Super Bowl viewership, and companies have long used historical data of Super Bowl viewership to predict future viewership before making a decision on whether to purchase advertising during the event. Companies have also long kept historical records on the success of promotional activities and their impact on sales. When making their decision regarding Super Bowl advertising, a company will consider the future viewership and the impact on sales in order to make a cost/benefit analysis. Thus, using past browsing data (historical viewership) to predict future browsing data (future viewership) and using that projection of future browsing data (future viewership) to predict future purchasing activity (the advertising campaign's impact on sales) was well-known to one of ordinary skill in the art at the time the invention.

In light of the foregoing, the previous rejection under § 103 is maintained.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 23: Claim 23 is directed toward a system comprising various subsystems. However, the claim does not positively recite any elements that necessarily constitute a system or apparatus, such as computer hardware. Rather, the claim could be directed to software. Claim 23 has been amended to recite subsystems “executable in the at least one computing system.” However, software is executable in computers; thus, the claimed invention could still be directed to software. Software per se is not patentable under § 101; therefore, the claimed invention does not fall within a statutory class of patentable subject matter.

Claims 24-25: Dependent claims 24-25 are rejected for failing to remedy the deficiencies of the claims from which they depend.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 38: Claim 38 depends from claim 37, which recites that a first demand projection is estimated from past browsing data for an item and a second demand projection is estimated from past purchasing data for an item. Claim 38 recites that when the item has been out of stock and unavailable for purchase, a greater weight is given to the second demand projection; that is, the projection associated with past purchasing data. The specification, on the other hand, discloses that "the facility weights the purchasing forecast from browsing forecast more heavily where the item went out of stock at the merchant at least once during the past time buckets that make up the purchasing history, as the resulting unavailability of the item may have prevented customers that intended to purchase the item during those time buckets from doing so." (see Specification, top of page 8). There is simply no support in the specification for weighting past purchasing data more heavily when an item has been out of stock. Furthermore, this amended limitation does not make logical sense. When an item is out of stock for a time period, there will not be any purchasing data for that period. Why would a nonexistent purchasing history be weighted more heavily?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38: Claim 38 depends from claim 37, which recites that a first demand projection is estimated from past browsing data for an item and a second demand projection is estimated

from past purchasing data for an item. Claim 38 recites that when the item has been out of stock and unavailable for purchase, a greater weight is given to the second demand projection; that is, the projection associated with past purchasing data. This limitation is unclear because it does not make logical sense. When an item is out of stock for a time period, there will not be any purchasing data for that period. Why would a nonexistent purchasing history be weighted more heavily? For examination purposes, Examiner interprets this limitation to mean that past browsing data is given more weight when an item is out of stock during a previous time period.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-25, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh (US 2002/0169657) in view of Mallon (US 2003/0004781), and further in view of Clemen, "Combining Forecasts".

Claim 1: Singh discloses a method for projecting future purchasing activity for a selected item, comprising:

- compiling historical purchasing data indicating, for each of a plurality of foregoing time periods, a level of item purchasing activity performed with respect to the selected item (see ¶ 42; ¶ 47, disclosing using compiled historical point-of-sale or

- customer order data to create a forecast; ¶ 52, disclosing a demand history database; ¶ 85, disclosing collecting data from various time periods);
- generating from the compiled historical purchasing data a second projection of future purchasing activity levels with respect to the selected item (see id. above; see also ¶ 48, disclosing determining a best forecast model); and

While Singh discloses compiling historical data for a particular item and using that data to generate a projection of future purchasing activity levels with respect to that item, Singh does not explicitly disclose wherein that data is browsing data. Mallon teaches using browsing data to generate a forecast of demand (see ¶¶ 40-41, disclosing measuring online browsing activities; ¶ 35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the browsing data taught by Mallon as one of the history streams disclosed by Singh (see figure 2). One of ordinary skill in the art would have been motivated to do so in order to determine the most accurate forecast for a particular product (see Singh, ¶ 48: lines 5-10). Furthermore, this combination of known elements produces a result that would be predictable to one of ordinary skill in the art.

Singh also does not explicitly disclose generating a projection of future browsing activity with respect to the selected item and using the generated projection of future browsing activity to project future purchasing activity. Mallon at least suggests these limitations (see ¶ 5, disclosing using past on-line behavior to predict future on-line action, including click-throughs of banner advertisements; ¶¶ 31-34, disclosing using past online activity to predict future economic activity; see also “Response to Arguments” section, above). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the forecasting

method of Singh the ability to forecast future browsing activity as taught by Mallon because the claimed invention is merely a combination of old elements, and in the combination each element would have performed the same function as it did separately. This combination of known elements produces a result that would be predictable to one of ordinary skill in the art (e.g. forecasting browsing activity rather than purchasing activity).

Furthermore, it is old and well-known to use advertising data to forecast demand (see e.g. US 2004/0249698 to Kuono, generally; US 2003/0191653 to Brinbaum, ¶ 5; see also "Response to Arguments" section, above). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to forecast purchase demand as taught by Singh using the projected browsing/advertising activity disclosed by Mallon. This combination of known elements produces a result that would be predictable to one of ordinary skill in the art.

It is not expressly clear whether Singh discloses blending the generated first and second projections of future purchasing activity levels with respect to the selected item to generate a third projection of future purchasing activity levels with respect to the selected item. Singh at least discloses combining (blending) various historical data with various forecasting algorithms to arrive at a blended forecast model (see figure 2). Singh also discloses "a multiple model framework that allows multiple alternative forecasting algorithms... to be associated with various data streams of demand history to produc[e] advanced forecasting models" (¶ 20). (see also ¶¶ 41-43, 47-48, 52-53 for more on combining/blending forecasts).

Even if Singh does not explicitly disclose blending forecasts, Clemen discloses a variety of techniques for combining forecasts (see Clemen generally). Furthermore, it would appear from Clemen that combining forecasts is old and well-known in the art (see annotated

bibliography on pages 569-583). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the forecasts of Singh according to the techniques disclosed by Clemen because the claimed invention is merely a combination of old elements, and the combination of the elements does not destroy their functionality. This combination of known elements also produces a result that would be predictable to one of ordinary skill in the art.

Claim 2: Singh discloses placing a resupplying order for the selected item based upon the third projection (see ¶ 93, disclosing using the forecast in manufacturing planning; ¶ 99, disclosing using the forecast to determine supply; ¶¶ 3-4).

Claim 3: Singh discloses a method wherein the first, second, and third projections of future purchasing activity levels each specify a level of purchasing activity with respect to the selected item during each of a plurality of target time periods following the foregoing time periods (see page 10: tables 2 and 3), the method further comprising determining that an external event occurred that is likely to have influenced the level of item purchasing activity performed with respect to the selected item during a selected one of the plurality of target time periods (see ¶ 55).

Singh also discloses weighing the most recent history data to give it more of an impact than older history data (see ¶ 85).

Clemen teaches wherein the blending comprises, for each of the plurality of target time periods:

- weighting the level specified by the first projection relative to the level specified by the second projection (see at least p. 561: col.2: ¶ 3-4, including ¶ 1 on p. 562; annotated bibliography), and
- combining the levels specified by the first and second projections in accordance with their weights (see id.),
- wherein the weighting for the selected target time period downgrades the weight of the level specified by the second projection relative to the level specified by the first projection (see id.).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the forecasts of Singh according to the techniques disclosed by Clemen because the claimed invention is merely a combination of old elements, and the combination of the elements does not destroy their functionality. This combination of known elements also produces a result that would be predictable to one of ordinary skill in the art.

Claim 4: Singh discloses wherein the external event determined to have occurred is an external event that is likely to have limited the availability of the selected item (see ¶ 81: lines 5-9, disclosing variations in demand due to unusual market conditions; see also ¶ 55: lines 32-37; ¶ 56: lines 11-15; ¶ 58: lines 9-19).

Claim 5: Singh discloses wherein the external event determined to have occurred is an external event that is likely to have prevented the purchase of the selected item (see id. references from claim 4).

Claim 6: Claim 6 is substantially similar to claim 1, except that it is directed to a computer-readable medium. Singh discloses this limitation (see figures 3 and 8; ¶ 107); thus, claim 6 is rejected under similar rationale as claim 1.

Claim 7: The limitations recited in claim 7 are substantially similar to limitations recited in claim 1. Thus, claim 7 is rejected under similar rationale as claim 1.

Claim 8: Singh discloses wherein the transforming produces a projection of future purchasing activity specifying an anticipated level of purchasing activity for each of a plurality of future time periods (see page 10: tables 2 and 3, following ¶¶ 96 and 98).

Claim 10: Singh discloses wherein the projection is generated using time-series forecasting techniques (see figures 4A-4D, disclosing using seasonal effects on time-series data; ¶ 5). Furthermore, this technique is old and well-known in the forecasting arts.

Claim 11: Singh discloses wherein the projection of future activity generated is a time-series of values characterizing future activity at each of a plurality of future times (see figures 4A-4D; ¶ 5; page 10: tables 2-3), and wherein future purchasing activity is predicted by applying a time-series of conversion ratios based upon conversion history at the merchant (see figure 4C, applying seasonal conversion ratios to data).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 12: Singh discloses wherein the merchant operates a web site (see ¶ 3, disclosing using the invention in conjunction with an e-business), and wherein a web log is produced in connection with the operation of the web site, further comprising:

- extracting activity data from the produced web log (see figure 3: 301a-c; ¶ 52, disclosing storing the activity data in a database); and
- storing the extracted data for retrieval (see id.).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 13: Singh discloses wherein the merchant operates a physical store, further comprising:

- capturing activity data within the physical store (see ¶ 3: 301a-c; ¶ 52); and
- storing the captured data for retrieval (see id.).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 14: Singh discloses wherein the merchant operates a plurality of locations at which the selected item is available for purchase, and wherein the transforming is performed to produce a projection of future purchasing activity specifying an anticipated level of purchasing

activity for each of the plurality of merchant locations (see figure 1: item 103, depicting location-specific forecasts; ¶¶ 41-42, 44).

Claim 15: Singh does not explicitly disclose wherein, for each shipping center, the anticipated level of purchasing activity is determined using browsing activity data from customers whose shipping address is associated with the shipping center.

However, Singh does disclose forecasting demand for a location, a market, and a region (see e.g. ¶¶ 41-42). From a functional sense, the claimed invention is indistinguishable from Singh. In a basic sense, what is claimed is using demand data from customers associated with a particular location when forecasting demand for that location. Singh discloses this basic limitation (see *id.*). The claimed invention uses a shipping address to make this association. Singh does not explicitly disclose using a shipping address to associate customers with a location; however, this association is old and well-known. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use shipping addresses to associate customers and their demand data with a particular location as disclosed by Singh. This combination of known elements produces a result that would be predictable to one of ordinary skill in the art.

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 16: Singh does not explicitly disclose wherein, for each shipping center, the anticipated level of purchasing activity is determined using browsing activity data from customers whose shipping address is associated with any of the shipping centers.

However, it is old and well-known to forecast demand based on all customers, and then distribute demand among a variety of manufacturing or distribution facilities. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply well-known forecasting and production techniques to the forecasting methodology of Singh. This combination of known elements produces a result that would be predictable to one of ordinary skill in the art.

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claims 17-20: Singh discloses using the projection of future purchasing activity to specify an operational parameter used to operate the merchant (see e.g. ¶ 105: ln. 22-26; figure 8: items 806-808). Singh does not explicitly disclose wherein the operational parameter is staffing level or inventory reorder level for the selected item or its complement. However, it is old and well-known to adjust such parameters based on forecasted demand (see e.g. US 6,249,774 to Roden for inventory replenishment; US 6,912,505 to Linden for complementary products; Singh ¶ 105 for staffing levels). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust business operations according to well-known methods based on the forecasts disclosed by Singh. This combination of known elements produces a result that would be predictable to one of ordinary skill in the art. Furthermore, One

of ordinary skill in the art would have been motivated to do so for the benefit of increased operating efficiencies.

Claim 21: Singh discloses wherein the retrieved data indicates an observed level of activity performed by the user at the merchant (see ¶ 47: lines 9-15, disclosing gathering compiled historical point-of-sale or customer order data to create a forecast).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 22: Singh discloses incorporating into the projection of future purchasing activity data indicating, during each of a plurality of past time periods, an observed level of purchasing activity performed by users with respect to the selected item (see ¶ 47: lines 9-15, disclosing using compiled historical point-of-sale or customer order data to create a forecast; ¶ 52: lines 6-8, disclosing a demand history database).

Claim 23: Claim 23 is substantially similar to claim 7, except that it is directed to a system. Singh discloses such a system (see figures 3 and 8); thus, claim 23 is rejected under similar rationale as claim 7.

Claim 24: Singh discloses wherein the retrieval subsystem retrieves data indicating an observed level of activity performed by users at the merchant's web site (see figure 3: 301a-c; ¶

52, disclosing storing and extracting the activity data from a database; see ¶ 3, disclosing using the invention with an e-business).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 25: Singh discloses wherein the retrieval subsystem retrieves data indicating an observed level of activity performed by users at a plurality of web sites, including the merchant's web site (see ¶ 3, disclosing using the invention with an e-business; figure 1: item 103, depicting gathering information from a variety of locations).

Singh does not explicitly disclose wherein the activity is browsing activity. However, this deficiency is accounted for in the rejection of claim 1, above.

Claim 37: Claim 37 contains many limitations that are substantially similar to those of claim 1 and are rejected under similar rationale.

Mallon discloses the following additional limitations of claim 37:

- the historical browsing data indexed by at least one browsing activity type (see at least ¶ 58, describing different categories of browsing data).
- assigning a browsing activity score in the at least one computing system for a specified time period based on the assigned browsing activity scores (see ¶¶ 64-68, disclosing a browsing score; ¶ 42, disclosing respective users and time periods);

- generating a composite browsing activity score in the at least one computing system for the specified time period based on the assigned browsing activity scores (see ¶¶ 64-68).

Mallon does not explicitly disclose a time index, and it is not expressly clear whether Mallon discloses activity scores for a time period, although it is at least suggested (see at least ¶¶ 31, 42, 56, 88). Examiner takes Official Notice that it was well-known in the art at the time the invention was made to use a time index for historical data used in forecasting. A common method that involves dividing historical data into time indices is time series forecasting. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the indices of Mallon and those known in the art with the forecasting methods of Singh. One of ordinary skill in the art would have been motivated to do so for the benefit of a more accurate forecast. Further, Mallon and Singh are combinable for reasons stated above.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh, Mallon, and Clemen, and further in view of Anupindi, “Estimation of Consumer Demand with Stock-Out Based Substitution: An Application to Vending Machine Products.”

Claim 38: Singh, Mallon, and Clemen do not explicitly disclose wherein the blending includes assigning a greater weight to the second projection of future purchasing activity levels than the first projection of future purchasing activity levels when the item has been out of stock during at least one of the foregoing time periods (Examiner’s note: see interpretation of this claim given in § 112, above). Anupindi discloses forecasting demand for a product based on data obtained when the product was in stock (“historical purchasing data”) and when the product

was out of stock (“historical browsing data”) (see page 406: abstract; page 407: column 2: ¶ 2 through page 408: column 1: ¶ 2; page 410: figure 1; page 412: figure 2; page 418-419; figure 3). When a product is out of stock for a time period, less weight is given to purchasing data and more weight is given to browsing data (in this case, browsing is indicated by the purchase of a substitute good) (see id.; see also page 410: column 1: ¶ 2; page 411: column 2: ¶¶ 1-4; figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to give greater weight to browsing data than purchasing data when there has been a stock-out (as taught by Anupindi) when combining the forecasts of Singh. One of ordinary skill in the art would have been motivated to do so for the benefit of a more accurate forecast.

Double Patenting

Claims 1, 7, 9-13, 21-25, and 37-38 of this application conflict with claims 1-12 of Application No. 10/830860. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claims 1, 7, 9-13, 21-25, and 37-38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-12 of copending Application No. 10/830860. Although the conflicting claims are not identical, they are not patentably distinct from each other because eliminating limitations from the claims of the

reference application would have been obvious to one of ordinary skill in the art at the time the invention was made.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ernst, Ricardo. "Estimating Future Demand Based on Historical Sales: Does It Make Sense?" Global Logistics and Supply Chain Strategies (Apr 1998)
- Ding, Xiaomei. "Demand Estimation and Optimal Policies in Lost Sales Inventory Systems." Ph.D. Thesis, The University of British Columbia (Jan 2002)

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

NRK
12/20/08
/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623